

**AMENDMENTS TO THE CLAIMS**

1. (Currently Amended) A method of managing defects on a ~~write-once-optical~~ recording medium having at least one recording layer, the method comprising the steps of:

allocating at least one temporary defect management area having a fixed size and at least one temporary defect management area having a variable size to the ~~optical~~-recording medium, respectively; and

recording defect management information on one of the at least one temporary defect management area having a fixed size and/or the at least one temporary defect management area having a variable size, wherein in the step of recording, the at least one temporary defect management area having a fixed size and the at least one temporary defect management area having a variable size are used in sequential order to record therein the defect management information.

2. (Currently Amended) The method of managing of claim 1, wherein in the step of allocating, the ~~optical~~-recording medium has at least two recording layers, a first recording layer which includes a temporary defect management area having a fixed size and a temporary defect management area having a variable size, and a second recording layer which includes a temporary defect management area having a fixed size and at least two temporary defect management areas having a variable size.

3. (Currently Amended) The method of managing of claim 1, wherein in the allocating step, the at least one temporary defect management area having a fixed size is allocated to at least one of a lead-in area and a lead-out area of the ~~optical~~-recording medium.

4. (Currently Amended) The method of managing of claim 3, wherein in the allocating step, the at least one temporary defect management area having a variable size is allocated to at least one spare area of the ~~optical~~-recording medium.

5. (Currently Amended) The method of managing of claim 4, wherein the at least one spare area includes an inner spare area and an outer spare area on the ~~optical~~-recording medium.

6. (Original) The method of managing of claim 1, wherein the step of allocating further comprises:

allocating at least one inner spare area, a portion of which is used to replace a defective area;

allocating at least one outer spare area, a portion of which is used to replace a defective area; and

allocating a portion of the at least one outer or inner spare area as a temporary defect management area to manage defect management information.

7. (Currently Amended) The method of managing of claim 1, wherein in the step of allocating, the at least one temporary defect management area is allocated to a first outer spare

area on the ~~optical~~-recording medium and has a size variable depending on a size of the entire first outer spare area.

8. (Currently Amended) The method of managing of claim 1, wherein in the step of allocating, the ~~optical~~-recording medium has at least two recording layers, a first recording layer which includes a first inner spare area, an entire area of which is used to replace a defective area and a first outer spare area having a variably allocated size, and a second recording layer which includes a second inner spare area and a second outer spare area.

9. (Original) The method of managing of claim 4, wherein in the step of allocating, if the at least one spare area is not allocated, the at least one temporary defect management area having a variable size is not allocated, but only the at least one temporary defect management area having a fixed size is allocated.

10. (Original) The method of managing of claim 4, wherein in the step of allocating, if the at least one spare area is allocated, the at least one temporary defect management area having a variable size is not allocated, but only the at least one temporary defect management area having a fixed size is allocated.

11. (Currently Amended) The method of managing of claim 1, wherein the ~~optical~~ recording medium is a write-once blu-ray disc (BD-WO).

12. (Original) The method of managing of claim 1, wherein in the step of recording, said defect management information includes at least one temporary defect list (TDFL) and at least one temporary disc definition structure (TDDS).

13. (Original) The method of managing of claim 12, wherein the size of the at least one temporary disc definition structure is fixed, and the size of the at least one temporary defect list is variable.

14. (Original) The method of managing of claim 12, wherein the at least one temporary defect list and the at least one temporary disc definition structure are separated.

15. (Original) The method of managing of claim 12, wherein the at least one temporary defect list and the at least one temporary disc definition structure are integrated.

16. (Currently Amended) The method of managing of claim 1, wherein in the step of recording, the at least one temporary defect management area having a fixed size ~~and is used~~ prior to using the at least one temporary defect management areas having a variable size ~~are used~~ sequentially to record therein the defect management information.

17 – 23. (Canceled)

24. (Currently Amended) The method of managing of claim 1, wherein the at least one temporary defect management area having a variable size is accessed first at an initial time of loading the ~~optical~~-recording medium.

25. (Original) The method of managing of claim 1, wherein in the recording step, the defect management information includes full indication information providing notification of which area among the temporary defect management areas is full.

26. (Currently Amended) The method of managing of claim 1, further comprising:  
recording defect management information on a permanent defect management area of the ~~optical~~-recording medium when the ~~optical~~-recording medium is to be finalized.

27. (Currently Amended) The method of managing of claim 1, further comprising:  
recording defect management information in a permanent management area of the ~~optical~~ recording medium when a spare area of the ~~optical~~-recording medium is full.

28. (Currently Amended) The method of managing of claim 1, further comprising:  
recording defect management information on a permanent management area of the ~~optical~~-recording medium when the temporary defect management areas are full and defects cannot be managed any longer.

29. (Currently Amended) An apparatus for managing defects on a ~~write-once-optical~~ recording medium, the apparatus comprising:

a pickup configured to record data on the recording medium; and  
a controller, operatively coupled to the pickup, configured to determine means for  
allocating at least one temporary defect management area having a fixed size and at least one  
temporary defect management area having a variable size to the ~~optical~~-recording medium,  
respectively; and the controller configured further to control means for recording defect  
management information on one of the at least one temporary defect management area having a  
fixed size and/or the at least one temporary defect management area having a variable size,  
wherein the at least one temporary defect management area having a fixed size and the at least  
one temporary defect management areas having a variable size are used in sequential order to  
record therein the defect management information.

30. (Currently Amended) A ~~write-once-optical~~ computer-readable recording medium  
having at least one recording layer, comprising

at least one temporary defect management area having a fixed size and at least one  
temporary defect management area having a variable size, wherein defect management  
information is recorded on the at least one temporary defect management area having a fixed size  
and/or the at least one temporary defect management area having a variable size, and wherein the  
at least one temporary defect management area having a fixed size and the at least one temporary  
defect management areas having a variable size are used in sequential order to record therein the  
defect management information.

31. (Currently Amended) The ~~optical~~-recording medium of claim 30, wherein the ~~optical~~ recording medium comprises at least two recording layers, including: a first recording layer, which includes a temporary defect management area having a fixed size and a temporary defect management area having a variable size; and a second recording layer which includes a temporary defect management area having a fixed size and at least two temporary defect management areas having a variable size.

32. (Currently Amended) The ~~optical~~-recording medium of claim 30, wherein the at least one temporary defect management area having a fixed size is located in at least one of a lead-in area and a lead-out area of the ~~optical~~-recording medium.

33. (Currently Amended) The ~~optical~~-recording medium of claim 32, wherein the at least one temporary defect management area having a variable size is located in at least one spare area of the ~~optical~~-recording medium.

34. (Currently Amended) The ~~optical~~-recording medium of claim 33, wherein the at least one spare area includes an inner spare area and an outer spare area on the ~~optical~~-recording medium.

35. (Currently Amended) The ~~optical~~-recording medium of claim 30, further comprising: at least one inner spare area, a portion of which is used to replace a defective area; and

at least one outer spare area, a portion of which is used to replace a defective area, wherein a portion of the at least one outer or inner spare area is used as a temporary defect management area to manage defect management information.

36. (Currently Amended) The ~~optical~~-recording medium of claim 30, wherein the at least one temporary defect management area having a variable size is located in a first outer spare area on the ~~optical~~-recording medium and has a size variable depending on a size of the entire first outer spare area.

37. (Currently Amended) The ~~optical~~-recording medium of claim 30, wherein said ~~optical~~-recording medium has at least two recording layers, said at least two recording layers comprising:

a first recording layer which includes a first inner spare area, an entire area of which is used to replace a defective area and a first outer spare area having a variably allocated size; and

a second recording layer which includes a second inner spare area and a second outer spare area.

38. (Currently Amended) The ~~optical~~-recording medium of claim 30, wherein the ~~optical~~ recording medium is a write-once blu-ray disc (BD-WO).



39. (Currently Amended) The ~~optical~~-recording medium of claim 30, wherein said defect management information includes at least one temporary defect list (TDFL) and at least one temporary disc definition structure (TDDS).

40. (Currently Amended) The ~~optical~~-recording medium of claim 39, wherein the size of the at least one temporary disc definition structure is fixed, and the size of the at least one temporary defect list is variable.

41. (Currently Amended) The ~~optical~~-recording medium of claim 39, wherein the at least one temporary defect list and the at least one temporary disc definition structure are separated.

42. (Currently Amended) The ~~optical~~-recording medium of claim 39, wherein the at least one temporary defect list and the at least one temporary disc definition structure are integrated.

43. (Currently Amended) The ~~optical~~-recording medium of claim 30, wherein the at least one temporary defect management area having a fixed size ~~and is used prior to using~~ the at least one temporary defect management areas having a variable size ~~are is used sequentially to record therein the defect management information.~~

44 – 50. (Canceled)

51. (Currently Amended) The ~~optical~~-recording medium of claim 30, wherein the at least one temporary defect management area having a variable size is accessed first at an initial time of loading the optical recording medium.

52. (Currently Amended) The ~~optical~~-recording medium of claim 30, wherein the defect management information includes full indication information providing notification of which area among the temporary defect management areas is full.

53. (Currently Amended) The ~~optical~~-recording medium of claim 30, further comprising:  
a permanent management area to record therein defect management information when the ~~optical~~-recording medium is to be finalized.

54. (Currently Amended) The ~~optical~~-recording medium of claim 30, further comprising:  
a permanent management area to record therein defect management information when a spare area of the ~~optical~~-recording medium is full.

55. (Currently Amended) The ~~optical~~-recording medium of claim 30, further comprising:  
a permanent management area to record therein defect management information when the temporary defect management areas are full and defects cannot be managed any longer.

56. (New) The apparatus of claim 29, wherein the controller is configured to record defect management information in the at least one temporary defect management area having a

fixed size prior to recording in the at least one temporary defect management areas having a variable size.

57. (New) The apparatus of claim 29, wherein the controller is further configured to record at least one temporary defect list (TDFL) and at least one temporary disc definition structure (TDDS) as defect management information.

58. (New) The apparatus of claim 57, wherein the size of the at least one temporary disc definition structure is fixed, and the size of the at least one temporary defect list is variable.

59. (New) The apparatus of claim 57, wherein the controller is further configured to record the at least one temporary defect list and the at least one temporary disc definition structure in a separate cluster, respectively.

60. (New) The apparatus of claim 57, wherein the controller is further configured to record the at least one temporary defect list and the at least one temporary disc definition structure in a same cluster.